

**[Received by the International Bureau on 08 December 2003 (08.12.03):
original claims 17, 20 and 22 replaced by amended claims 17, 20 and 22, remaining
claims unchanged (1 page)]**

17. A method as described in claim 16, wherein the cardiomyocytes of step (a) are prepared by the additional step of controlled cell fusion *in vitro* or *in vivo* between myocytes and cardiomyocytes.

18. A method as described in claim 16, wherein the controlled cell fusion step comprises the addition of chondroitin sulfate.

19. A method as described in claim 16; wherein the chondroitin sulfate is added to a final concentration of between 5 micromolar to 5 millimolar.

20. A composition of cells useful for repair of damaged heart muscle, comprising heterokaryons that exhibit characteristics of both normal myoblasts and normal cardiomyocytes, including the ability to undergo mitosis *in vitro* or *in vivo* and to develop desmosomes, gap junctions, and to contract in synchrony after transplantation into damaged heart muscle.

21. A composition as described in claim 20, further comprising between 5 micromolar to 5 millimolar chondroitin sulfate.

22. A composition of cells useful for repair of damaged heart muscle, comprising heterokaryons that exhibit characteristics of both normal myoblasts and normal cardiomyocytes, including the ability to undergo mitosis *in vitro* or *in vivo*.

23. A composition as described in claim 20, wherein the heterokaryons transgenically express a cellular integration factor selected from the group consisting of an angiogenesis factor, TGF-beta, vascular endothelial growth factor, fibroblast growth factor, platelet derived growth factor, angiogenin, pleiotrophin, and interleukin-8.

24. A composition as described in claim 20, further comprising a cellular integration factor selected from the group consisting of a migration factor, a scaffolding protein, PDGF, HGF, fibronectin, MMP-1, MMP-2, laminin, laminin-1, fibronectin, type I collagen, type II collagen, type IV collagen, thrombospondin-I,